

## Remarks

### Status of the Claims

Claims 1-5, 9-41, and 45-53 were pending in the application. In the Office Action mailed July 24, 2007, 2007, claims 1-5, 9-41, and 45-53 were rejected. Claims 17-36 and 53 remain withdrawn from consideration as being directed to a non-elected species. By this paper, claims 1, 37, and 52 have been amended. For the reasons set forth below, Applicant submits that each of the pending claims is patentably distinct from the cited prior art and in condition for allowance. Reconsideration of the claims in view of the amendments and following remarks is therefore respectfully requested.

### Claim Rejections

Claims 1-5, 9-16, 37-41, and 45-52 were rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Bruck et al. ("Bruck") in view of Kanungo. Claims 14-15, 50-51, and 54-55 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bruck. These rejections are respectfully traversed. As set forth below, Applicant respectfully submits that each of the pending claims, as amended, is patentably distinct from the cited prior art.

1. The cited references do not teach or suggest that **actions** are encapsulated within a PIO as program code.

Applicant previously argued that the cited references do not teach encapsulating "actions" within a PIO. The Office Action now asserts that the claims do not recite this limitation. While Applicant disagrees with the Examiner's assertion that "encapsulating"

modifies “memory” (because “within the memory” is a prepositional phrase), to advance prosecution of the application, claim 1 has been amended to recite:

each PIO comprising a single discrete data structure for representing a single respective television program, ***each PIO encapsulating:***

...

(ii) ***a plurality of actions*** to be performed in connection with the single television program, wherein each of the actions are represented within the PIO as program code

The Office Action appears to be arguing at page 3 that the previous claim language could be interpreted to mean that Bruck’s “memory” encapsulates attributes and actions, even if a single data structure (PIO) does not. However, as amended, it is clear that attributes and actions must be encapsulated within a single PIO data structure. Furthermore, the actions must be represented as program code (routines).

Bruck does not disclose or suggest encapsulating actions in the form of program code (routines) within a single data structure (PIO) with both attribute data and graphical data, all of which relate to the same television program. While Bruck’s FIG. 12 shows a user interface including buttons for performing various actions (e.g., record, remind), there is no reason to assume that the program code (routines) for carrying out these functions is included within a single data structure or web page. In all likelihood, the program code for carrying out the “record” action is stored externally to the web page displayed in

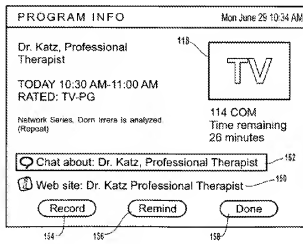


FIG. 12

in FIG. 12. Thus, Bruck does not teach or suggest the required encapsulation of actions within a PIO.

Kanungo does not cure the deficiencies of Bruck. Kanungo relates to a system for creating a picture-in-picture (PIP) interface using Java. Kanungo does not disclose or suggest the claimed program information objects (PIOs), which encapsulate attributes, actions (program code/routines), and graphical data. Applicant is not claiming to have invented Java virtual machines or machine independence. These limitations were added to emphasize the fact that the actions are embedded within the PIOs as executable routines (as opposed to links, which is apparently the case with Bruck).

2. The cited references do not teach or suggest displaying the icons encapsulated within a plurality of PIOs in a single graphical user interface.

In response to Applicant's argument that Bruck does not teach displaying icons corresponding to a plurality of PIOs within a graphical user interface other than a grid-based EPG, the Office Action refers to Bruck at col. 8, line 61 through col. 9, line 5 as follows:

FIG. 13 depicts an options screen that can be actuated using the remote control while viewing a television program. As indicated, the options screen may include an interactive link 150, a chat link 152, and user selectable buttons 160, 162 and 164, which allow a user to access a programming guide for a current day, access the previously-described program information interface and access a television favorites mode where still images from multiple channels are displayed simultaneously on separate small areas of the screen. The options screen also may include a user selectable button 166 which links the user to a chat room related to the current program upon selection. Button 166 is shown in the highlighted condition in FIG. 13.

Bruck does not disclose or suggest that the “still images” in his “favorites mode” are each encapsulated within a separate PIO. The claim does not recite “displaying icons representing the plurality of PIOs in the GUI.” Rather, the claim recites “displaying the icons representing the plurality of PIOs in the GUI.” The definite article “the” refers back to the previously recited “graphical data for display as an icon to visually represent the PIO.” Thus, each icon is encapsulated within a corresponding PIO.

Bruck does not teach or suggest that the still images are encapsulated within respective PIOs. The fact that he can display “still images” in a “favorites mode” does not mean that those still images are encapsulated within the same data structure as attributes and program code (routines), all pertaining to a single television program. Without such a teaching, one of ordinary skill in the art would assume that the “favorites mode” is, itself, a web page containing icons for a plurality of different television programs, contrary to the “single respective television program” language of claim 1.

3. Bruck does not teach or suggest the recited method for initiating PIO actions.

Claim 1 recites:

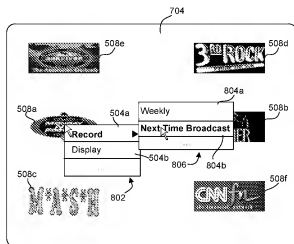
displaying the icons representing the plurality of PIOs in the GUI;

in response to a user picking a icon of a selected PIO within the GUI, displaying a context menu listing the one or more actions associated with the selected PIO, at least one of the actions for displaying supplemental information related to the associated television program;

in response to the action for displaying supplemental information being selected from the context menu, using the at least one attribute comprising the link to retrieve the supplemental information referenced by the link; and

displaying the supplemental information in the GUI.

These claimed features are illustrated in FIG. 8 of the present application (reproduced below), in which a user selects one of iconic representations of PIOs and is presented with a context menu (802) listing the available actions for selected PIO.



Applicant respectfully submits that claimed process for displaying supplemental content related to a television program is not taught or suggested by Bruck. Bruck doesn't display a plurality of icons representing different PIOs. Bruck does not allow a user to select a particular PIO via a displayed icon. Bruck does display, ***in response to one of the icons being selected***, a context menu listing the actions available for the associated PIO, one of the actions being configured to display supplemental content.

Applicant respectfully submits that Bruck's entire discussion of the "favorites mode," which the Examiner is apparently equating with the claimed features depicted in FIG. 8, is underlined in the following passage:

FIG. 13 depicts an options screen that can be actuated using the remote control while viewing a television program. As indicated, the options screen may include an interactive link 150, a chat link 152, and user selectable buttons 160, 162 and 164, which allow a user to access a programming guide for a current day, access the previously-described program information interface and access a television favorites mode

where still images from multiple channels are displayed simultaneously on separate small areas of the screen. The options screen also may include a user selectable button 166 which links the user to a chat room related to the current program upon selection. Button 166 is shown in the highlighted condition in FIG. 13.

Col. 8, line 61 through col. 9, line 5. Applicant respectfully submits that Bruck says nothing about what happens when a user selects one of these "still images" or whether they are even "selectable." Indeed, according to one interpretation, the favorites mode simply reminds the user (by displaying a list of images) about his favorite channels, but provides no interactive functionality whatever. At the very least, Bruck does not disclose or suggest the detailed limitations of:

(1) in response to a user picking a icon of a selected PIO within the GUI, displaying a context menu listing the one or more actions associated with the selected PIO, at least one of the actions for displaying supplemental information related to the associated television program; and

(2) in response to the action for displaying supplemental information being selected from the context menu, using the at least one attribute comprising the link to retrieve the supplemental information referenced by the link.

Applicant respectfully inquires where the "context menu" of Bruck is shown or described in the context of Bruck's "favorites mode." Applicant also respectfully inquires where a listing of a specific action for displaying supplemental information is described as being displayed in response to selecting one of the Bruck's "still images."

### Conclusion

In view of the foregoing, claim 1 is believed to be patentably distinct. Claims 37 and 52 have been amended to include similar limitations and are likewise believed to be patentably distinct for at least the same reasons. All other claims depend directly or indirectly from one of the foregoing claims and are therefore patentable by virtue of that dependency. A Notice of Allowance is therefore respectfully requested. The Examiner is encouraged to contact the undersigned at the telephone number provided below for a quick resolution of any remaining issues.

Respectfully submitted,

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